cc: Tom O
Merle
Allan M
FYI
Sms

Utility Specialists
Make the Right Connection

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TRANSMITTAL

COMPANY: McDonnell Douglas Realty Company

DATE: May 6, 1996

RE: Advanced Copy Electric Issues - Harbor Gateway

TO: Mario Stavale

FAX NO: 310 627. ~~3014~~ 3109

FROM: FRANK BAKER

PHONE: 714.770.9514

MAIL _____ FAX ✓ PAGES (Include Cover) 6

NO. OF PAGES	DESCRIPTION
2	May 3, 1996 Letter
3	May 1996 California Building Article

COMMENTS: Mario, As discussed advanced copies of Electric issues list. I'll call after I get back to town next week. In the interim if you need something please don't hesitate to call Dick Hughes at 714-770-1900.

Thx
Frank

user. I have enclosed a recent background article I wrote for California Building.

- Maintaining electric services beyond Harbor Gateway Center during the centers development.
- As a source of electric service for the Center.

Although the Halldale receiving station could be the most significant electric utility opportunity and constraint with the project site development, we have also identified the following additional electric service issues as part of our initial investigation.

- Site development phasing and coordination of replacement and/or abandonment of existing LADWP and McDonnell Douglas electric infrastructure.

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Post-it® Fax Note 7671	Date 5/6/96	# of pages ▶ 2
To Mario Stavale	From Frank Bench	
Co McDonnell Douglas	Co.	
Phone #	Phone # 714 770 9514	
Fax #	Fax #	

May 3, 1996

Mr. S. Mario Stavale
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SUBJECT: INVENTORY OF ELECTRIC SERVICE & INFRASTRUCTURE ISSUES, HARBOR GATEWAY CENTER

Dear Mario:

As we know, the current McDonnell Douglas manufacturing site is served by LADWP with four (4) electric distribution circuits at 13.8Kv. Electric distribution is provided directly from the Halidale 138Kv "receiving station" on 203rd Street at Denker. In addition to providing electric service to the existing McDonnell Douglas facility, Halidale receiving station provides distribution service to Jones Chemicals on the east and Western Metals to the north and west.

The Halidale receiving facility is also connected at 138Kv to Wilmington Gramercy receiving facility to the south. A 34.5Kv poleline along the project's west boundary also provides another connection to facilities along 190th Street.

We consider the **Halidale "receiving station"** and its 138Kv service to be **a strategic facility** and issue in the global planning for the Center from a number of perspectives such as:

- Ownership of the land on which Halidale is located; substation sites of this magnitude are very difficult to develop and/or replace in today's EMF and aesthetically sensitive environment in addition to potential land values.

  A 138Kv electric source and substation facility could have great value in a future deregulated electric industry promoting open access to sources of energy supply and transportation from supplier to end user. I have enclosed a recent background article I wrote for California Building.

- Maintaining electric services beyond Harbor Gateway Center during the centers development.

- As a source of electric service for the Center.

Although the Halidale receiving station could be the most significant electric utility opportunity and constraint with the project site development, we have also identified the following additional electric service issues as part of our initial investigation.

- Site development phasing and coordination of replacement and/or abandonment of existing LADWP and McDonnell Douglas electric infrastructure.

Electric Service Issues con't.

- Incompatibility of existing 13.8Kv distribution facilities and probable new system standard of 34.5Kv resulting in a constraint on development phasing, electric system costs and coordination of replacement electric infrastructure.

- Existing twin circuit 34.5Kv poleline along westerly project boundary as a development constraint with respect to cost of underground replacement cost (order of magnitude cost is estimated at $200 per system foot plus developer construction costs for a 6-inch conduit and vault system at approximately $80 per system foot) and the use of this poleline by LADWP as a tie to facilities north of the project and backup facility for the existing McDonnell Douglas site.

- Other electric services originating or transiting the site such as street lighting and traffic signalization.

- Site development electric infrastructure costs and extension scenarios to facilitate and benefit development uses and phasing. Based on our initial discussions with LADWP, it would appear that many of these costs are negotiable ranging form complete developer cost responsibility to complete utility cost responsibility

- Projected land uses and electric demands as a function of electric distribution system design, cost and construction coordination.

- LADWP design lead-times of 3 to 4 months plus developer and utility construction lead time.

- Reconciliation of existing LADWP easement and potential prescriptive rights with land reuse and development objectives .

Mario, as we discussed, the above list is not expected to be all inclusive of electric service and development issues, but more to refine a process for developing, understanding and prioritizing strategic and tactical electric service opportunities and constraints for this project. I also recommend a similar undertaking for telecommunications and natural gas services when you feel the time is right.

For a the next step, please let me know when you would like to meet to further discuss strategic opportunities and or constraints with respect to LADWP, project electric service needs, existing facilities abandonment and electric infrastructure priorities for the site. In the interim, if I can be of additional information or assistance please call me at 714.770.9514.

Sincerely,

Utility Specialists California, Inc.

Frank J. Baker
President

cc: Dick Hughes

BACK TO THE FUTURE

HOW DEREGULATION OF INVESTOR-OWNED UTILITY COMPANIES WILL IMPACT THE BUILDING INDUSTRY

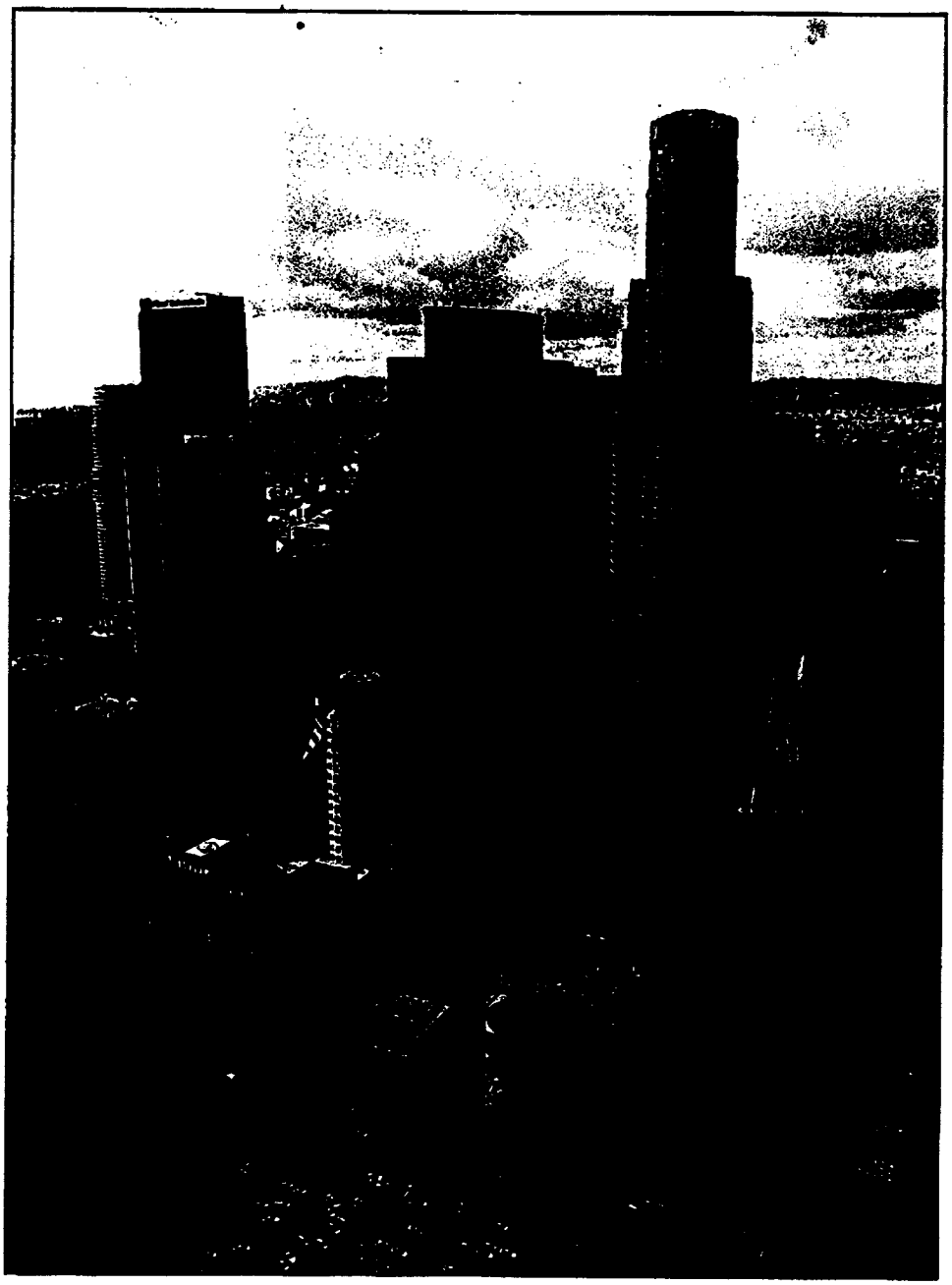
BY FRANK BAKER

EDISON

Southern California Gas Company

PG&E

Pacific Enterprises Companies



Gas Company Tower in Los Angeles, company headquarters.

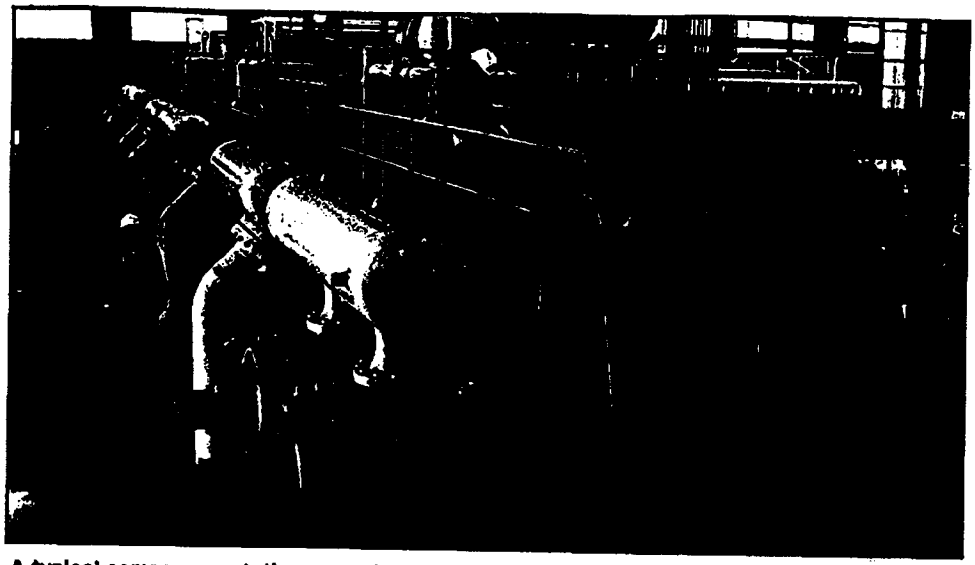
Walking the halls of the Public Utilities Commission in San Francisco, the State Legislature in Sacramento or any Electric, Gas or Telephone company these days you will invariably overhear discussions about "deregulation" and the new competition of the 90's. As consumers of these services we see the outward appearances of deregulation through events like the recent Pacific Telesis/Southwestern Bell merger, SDG&E's transformation to Enova Corporation, and Edison International with its new yellow and green sunburst logo.

Reaching Back To The Future

Since the oil crisis of the 70's and breakup of Ma Bell in the 80's, the investor-owned Gas, Electric and Telephone "public utility" companies and their respective regulatory overseers have been changing and evolving to adapt to the new competitive ways of the future. Interestingly, in many ways it really is a story of "Back to the Future."

At the end of the last century, the Industrial Revolution spawned the invention of the electric industry and replacement of manufactured gas with natural gas. Development of these industries, like most, involved very large amounts of capital and often intense competition. It was not uncommon for the streets of our large cities to be cluttered with a forest of utility poles and lines belonging to competing companies and "entrepreneurs of the day." The market place initially belonged to whoever had the poles, wire, labor, electric generating source and the capital to extend new electric lines.

Whether in the interest of the public or



A typical compressor station operations.

the largest of competitors, regulatory oversight evolved to bring some order and public policy goals to what was typically a free-for-all market place. In the early part of this century, a public policy goal of "universal access" to the necessities of gas and electric service evolved at the federal, state and sometimes local government levels.

As we move into the 21st century, public policy and regulation is returning to market place competition through deregulation, or perhaps more accurately, "reregulation" of the gas and electric industries. The goal of deregulation is to ultimately lower utility service costs for Californians from efficiencies reached through market place competition.

Restructuring: Giving Consumers The "Power of Choice"

On December 20, 1995, the California Public Utilities Commission ordered the state's investor-owned electric companies to provide their customers "open access" to electric energy suppliers beginning in January 1998. Restructuring of the electric industry will separate the present integrated electric functions of Pacific Gas & Electric, San Diego Gas & Electric and Southern California Edison into generation (deregulated electric energy production), transmission, and distribution (regulated local delivery) operators.

The change is already in progress. SDG&E now is a subsidiary of ENOVA Corporation. Southern California Edison is now a subsidiary of EDISON INTERNATIONAL.

All customers of California's investor-owned utilities will have a choice of supplier through a new "Power Exchange," in state companies like Edison, PG&E, SDG&E and other local producers like Independent Electric CoGenerators, and nearby neighbors like Oregon/Utah-based Pacific Power & Light as well as several others. These generators will supply power to the Power Exchange. California residents will have "open access" to the lowest cost electric energy through the Power Exchange.

Also on December 20, 1995 the CPUC ordered the investor-owned electric utility companies in California to make the necessary changes in order to achieve the following five goals:

1. Create a competitive market structure for electric services.

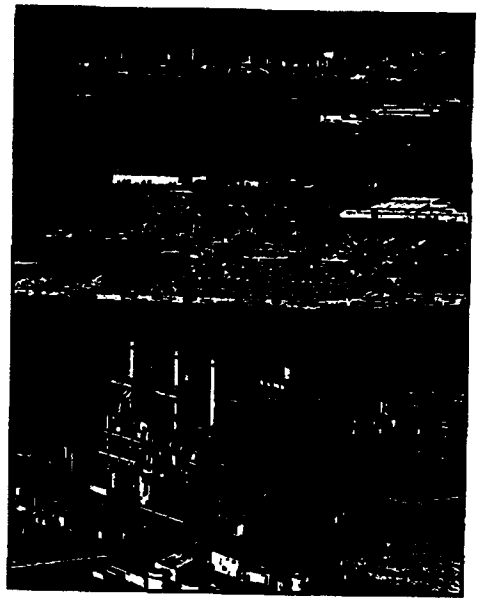
2. Reduce the cost of electricity.

3. Create electric customer choice beginning Jan 1, 1998.

4. Maintain the financial integrity of Utility Shareholders by allowing recovery of costs associated with restructuring without raising electric rates above the January 1996 level.

5. The cost of Public Policy programs (for example energy efficiency incentives) can not be "bypassed" by new market energy providers. (Public Policy programs will continue with funding through a non-bypassable surcharge.)

By 1998 a new electric energy market



SDG&E's South Bay Power Plant can produce about 725 megawatts of electricity – meeting the electric needs of about 700,000 customers.

structure is to be in place. This new structure will be organized around three (3) independent areas of operation:

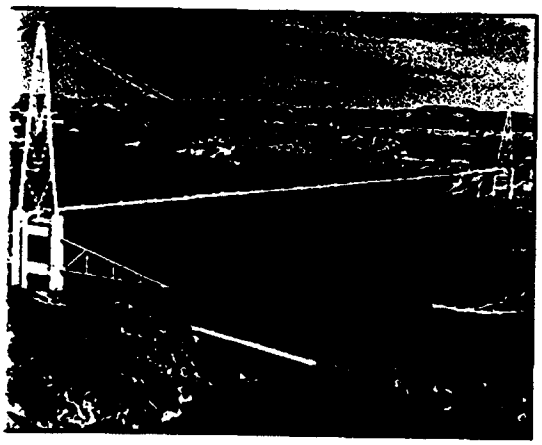
• First the creation of a federally regulated Power Exchange mentioned above, where all interested electric energy sellers and buyers can participate. The generators are unregulated.

• Second, the development of an Independent System Operator. The ISO is responsible for control of power transmission, the reliability of the system, and managing transmission in an efficient manner. It has no commercial interest in electricity sales.

• Third, to fulfill the customer demand, power is delivered by the regulated local distribution (PG&E, SDG&E, SCE) company.

Electric power customers would choose among many sellers or retailers offering different levels of service, ranging from limited assistance to comprehensive purchase and delivery services. For example an individual residential customer could choose a "full" service provider and not be involved in purchase or delivery details.

An energy user with a medium power demand, such as an apartment complex, may choose to buy directly from the Power Exchange and contract for delivery through



Pipeline at Colorado River from El Paso. National Gas Company.

power marketer, aggregator or other service provider. In the case of a large energy consumer, like a manufacturer, the power customer may find it advantageous to purchase directly and handle delivery coordination without the assistance of others.

The power purchase and delivery process, although simple in description, is nevertheless complex. Electricity purchases, transportation and delivery functions will likely resemble current commodity market transactions.

As with present commodity type exchanges, it is anticipated that retailers, brokers and transaction specialists will emerge to offer customized "value added" energy products and services. The development of these specialists would be in harmony with the PUC goal of a competitive market offering a variety of electric energy service choices and options.

In addition to a market place of choice and options for electric energy services, it is expected that over the time needed to adjust to new market realities and conditions, California consumers and industry will see lower electric energy costs.

Gauging The Impact Of Deregulation

As builders, developers, real estate professionals and consumers, what can we expect from a newly deregulated electric industry? With telephone deregulation, we made a transition from one exclusive supplier of everything from telephone instruments, home wiring and monthly service to a market place full of choices for equipment and service providers. As an example of the future of electric deregulation, we might look at these experiences and the 1980's deregulation of the natural gas industry.

Deregulation of the gas industry was precipitated by oil producers in the Central Valley of California, who were successful in getting open access to previously closed gas pipelines. In addition, the controlled price of natural gas at the "well head" was "decontrolled." As a result of these two federal public policy changes, the established pricing of gas production and long distance transportation is more a function market based on supply and demand rather than a regulated, "rate of return," capital-cost-based business supporting many market and "non-market" based regulatory objectives.

With the loss or potential loss of large gas consumers and therefore very large revenue generators, the cost of service to the rest of California's gas customers—individuals, retailers and smaller industrial gas users—was threatened. The California Public Utilities Commission moved to mitigate the potential negative impact to individuals and smaller commercial gas customers, with deregulation of the California gas industry. With decontrol of Gas at the "well head" source, deregulation of transportation companies and competition for large customers, one utility estimates the commodity price of natural gas has declined 40% since the mid 1980's.

Challenges For Builders

As we move into a new market place for energy and energy services, builders will be challenged to sort out what, if any, changes their building occupants and homeowners will want. Deregulation, reregulation or restructuring, whatever it is called, may be directed at lowering consumer cost, but it is the builder, through his products, infrastructure and costs, who will provide the "ultimate access."

Builders are partners with utility companies in the extension of new infrastructure through regulatory requirements called "line extension rules." For example, single family residential home builders spend approximately $3,000 per lot for gas, electric and telecommunications infrastructure extensions. Of this amount, as much as $2,000 may be recoverable through gas and electric refunds that as of July 1995, are based on energy revenues generated by the individual homeowner.

What happens in a new world of energy reregulation and restructuring, where only the local distribution company that owns, operates and maintains the above builder provided infrastructure, is regulated and free from the efficiencies of a competitive market place? Some insight is available to us from past and present experience with PUC-sanctioned programs to bring competition to the areas of infrastructure construction and design.

Since 1983 builders have had the option to construct the utility's portion of gas and electric systems as a means to bring competition and cost efficiencies to this element of infrastructure cost. With exception of gas extensions in SDG&E's service territory, very few "builder" extensions have been built elsewhere in the last 13 years. It is the common belief of those outside the utility companies that this unspectacular performance record is often the result of utility barriers and disengaged regulatory oversight.

Beginning this year, builders, utility companies and regulators will embark on a two-year pilot project to bring competition to the design of gas and electric systems. Hopefully, in a new environment of deregulation, this program will be able to achieve the efficiencies promised by a competitive market place for services.

What's next in energy restructuring and reregulation? During the next two years, a scheduled series of public workshops and hearings will take place at the PUC and in the Legislature to prepare for implementation of the deregulation of electric energy supply, transmission and reregulation of the distribution delivery process.

As representatives of the structures and infrastructure that provides the ultimate market and delivery systems of telecommunications and energy services, it will be important for builders to engage and involve themselves in this process. Along the road to "open access," how much of the old and often necessary "universal access" will builders be responsible for? Only time will tell. ■

Frank Baker is the founder of Utility Specialists, a 20-year-old dry utility (gas, electric, telephone, CATV) consulting, planning and design firm doing business in California, Arizona and Nevada. Since 1978, he has been involved in builder advocacy at the PUC and Legislature for CBIA.